

AMENDMENT TO THE CLAIMS

Claims 1 – 13, 19, and 20 will have been canceled without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims

1. – 13. (Canceled).

14. (Original) A tetrahedralizing filter, comprising:

a receiver for data defined on a non-conformal mixed element mesh comprising elements subdividable into tetrahedra,

a processor for the mesh data, wherein the processor dynamically associates individual to-be-subdivided elements in the mesh with a degree of freedom value in an element-by-element degree of freedom directory;

an element subdivider that discriminates on whether to initiate subdivision or hold subdivision based on the degree of freedom directory, with subdivision priority to relatively most-constrained to-be-subdivided elements.

15. (Original) The filter of claim 14, including a subdivision strategizer.

16. (Original) The filter of claim 14, including a dynamic directory.

17. (Original) The filter of claim 14, wherein the directory is updated between element subdivisions.

18. (Original) The filter of claim 14, including a breadth-first-search subdivider that generates nearest newly-constrained elements and subdividing all nearest newly-constrained elements before subdividing a neighbor of a nearest newly-constrained element.

19. – 20. (Canceled).